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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/520,463	10/07/2005	Agostino Di Trapani	Q85687	5533
23373 7590 09/14/2009 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037				
EXAMINER				
FONSECA, JESSIE T				
ART UNIT		PAPER NUMBER		
3633				
MAIL DATE		DELIVERY MODE		
09/14/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/520,463

Applicant(s)

DI TRAPANI, AGOSTINO

Examiner

JESSIE FONSECA

Art Unit

3633

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 May 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 38-55 is/are pending in the application.
- 4a) Of the above claim(s) 46 and 48-52 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 38-45, 47 and 53-55 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 May 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Oath/Declaration

The replacement declaration filed 5/28/09 is acceptable.

Claim Objections

Claims 38 and 41 are objected to because of the following informalities:

Claim 38 (line 15): It appears "which strip" should be --which the strip-- as a strip has already been positively recited. Appropriate correction is required.

Claim 41 (line 10): It appears "partiallyis" should be --partially is--.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 41-45, 47, and 53 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to claims 41-43: The scope of claims 41-43 is unclear. It is difficult to ascertain if applicant is claiming a single construction element, a plurality of construction elements, or a constructed wall comprising a plurality of construction elements.

Claim 41 recites the limitation "said plurality " in line 8 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim 41 recites the limitation "said plurality within said wall " in line 9 of the claim. There is insufficient antecedent basis for this limitation in the claim. Examiner notes the claim positively recites a load-bearing wall, however, the limitation "said wall" appears to be referring a different wall? Further, it's unclear as to what the limitation "said plurality" is referring to, is applicant referring to a plurality of construction elements?

Further regarding claim 42, line 2 of the claim recites the protuberance and groove having a trapezoidal cross-section. It's unclear as to which protuberance and groove the limitation is referring to as independent claim 41 appears to recite multiple construction elements.

Further regarding claim 43, the limitation said small base of the trapezoid" lacks proper antecedent basis. Should claim 43 be dependent upon claim 42?

Claims 41-45, 47, and 53 are examined as best understood.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 102

Claims 41-43, 45, and 45-47 are rejected under 35 U.S.C. 102(b) as being anticipated by Hinse (FR 1.255.646).

With regard to claim 41: Hinse discloses a construction element (1), comprising an upper face, a lower face, and lateral faces, said construction element (1) comprising at least one groove (X) having a depth and extending over the upper face thereof, said groove (X) being associated with a load-bearing wall or partition of the construction element and arranged at a distance from an outer lateral edge of the construction element, said construction element (1) further comprising at least one protuberance (Y), having a height and extending over the lower face thereof, the depth of said groove (X) and the height of said protuberance (Y) being approximately equal (fig. 5).

The protuberance of Hinse is arranged in such a way that when a first construction element is superimposed on a second construction element in a wall, the protuberance of the first construction element is capable of engaging into the groove of a second construction element, where the construction elements would be capable of accepting binder in the groove to form a strip, said construction elements being assembled to one another within said wall by means of a binder, the binder being applied in said groove in such a way that a strip of the binder is formed between the upper face and the lower face of the construction elements, which strip extends outside the groove towards the lateral faces, when said first construction element is superimposed on said second construction element, said strip forming the sole contact between the two superimposed elements, thereby enabling an adjustment of height alignment, height, and plumb of each of the plurality of construction elements.

As best understood, the claim is directed solely to the construction element. The construction element of Hinse is capable of use in constructing a wall as claimed. A

Art Unit: 3633

recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

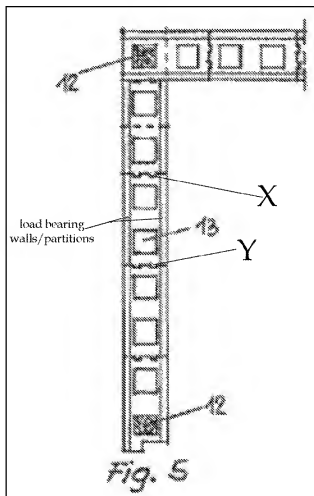


Fig. 5: Hinse (FR 1.255.646)

With regard to claim 42: Hinse further discloses the protuberance (Y) and the groove (X) have a cross-section, which is approximately trapezoidal in shape (figs. 1, 3 and 5).

The construction element of Hinse includes a protuberance lateral flanks extending in such a manner to allow for the capability of being parallel to the groove lateral flank of another construction element. The construction element of Hinse further includes a small base of the trapezoid of the protuberance capable of being arranged opposite of a small base of the trapezoid of the groove when engaged with another construction element to allow for spaces between the lateral flanks and small bases for reception of a binder.

As noted previously, the claims are directed solely to a single construction element. The lateral flanks of Hinse are capable of being parallel to the groove lateral flanks of another construction element, which Examiner submits does not have to be a construction element with the exact same configuration.

With regard to claim 43: As best understood, the binder is directed to the intended use of constructing a wall, the claims appear to be directed solely to the construction element.

With regard to claim 45: Hinse further discloses the width of the groove (X) of the construction element is less than a thickness of the load-bearing wall or partition of the construction element (best shown in fig. 1).

With regard to claim 47: Hinse further discloses the construction element has a plurality of load-bearing walls or partitions, and wherein the groove (X) is arranged above each of the load-bearing walls or partitions of the plurality (fig. 5).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 53 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hinse (FR 1.255.646) in view of Hanner (US 2,821,426).

With regard to claim 53: Hinse discloses everything previously mentioned, but fails to disclose in combination, a tool intended for lifting the construction element, wherein the tool is dimensioned so as to allow for the lifting, handling, laying and configured as a mason's hammer for adjusting the alignment, height, and plumb alignment of the construction element.

However, Hanner discloses a tool (18) for the carrying of blocks for ease of handling (figs. 1-5).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the construction element system of Hinse to include a tool as taught by Hanner in order to provide a means of carrying blocks that is easy to handle and transport. The tool of Hanner is capable of use as a masonry hammer.

A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brooke (US 800,067) in view of Vigouroux (FR 1,271,506).

With regard to claims 38: Brooke discloses a wall constructed from a plurality of construction elements (blocks) made of concrete like material (cement), each construction element (block) comprising an upper face, a lower face, and lateral faces, the construction element comprising at least one groove (6) extending over the upper face thereof (figs. 1-2), the groove (6) being associated with a load-bearing wall or partition of the construction element and arranged at a distance from an outer lateral edge of the construction element (figs. 1-2), the construction element further comprising at least one protuberance (5), having a height and extending over the lower face thereof, the depth of the groove and the height of the protuberance being approximately equal, the protuberance (5) being arranged in such a way that when a first construction element of the plurality is superimposed on a second construction element of the plurality with the wall, the protuberance (5) of the first construction element penetrates into the groove (6) of the second construction element (fig. 1), the construction elements being assembled to one another within the wall by means of a binder (col. 1, lines 9-19), the groove having a volume capable of determining the amount of the binder to be applied therein.

Brooke discloses everything previously mentioned, but fail to disclose the binder being applied in the groove in such a way that a strip of the binder is formed between the upper face and the lower face of the construction elements, when the first

construction element is superimposed on the second construction element the strip forming the sole contact between the two superimposed elements, thereby enabling an adjustment of height alignment, height, and plumb of each of the plurality of construction elements.

However, Vigouroux discloses construction elements (BB) being assembled to one another within a wall by means of a binder (XX), a groove (AA) having a volume determining an amount binder (XX) to be applied therein, the binder (XX) being applied in the groove in such a way that a strip of the binder is formed between the upper face and the lower face of the construction elements, when the first construction element is superimposed on the second construction element, the strip (XX) forming the sole contact between the two superimposed elements and extending outside the groove (AA) towards the lateral faces (fig. 1).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the wall of Brooke to include a strip of binder being formed between the upper face and the lower face of the construction elements, when a construction element is superimposed on another construction element, the strip forming the sole contact between the superimposed elements and extending outside the groove towards the lateral faces as taught by Vigouroux in order to provide a wall with sufficient integrity and stability to withstand live and dead loads associated with the environment in which it was constructed.

Examiner submits no new or unpredictable results would be expected from including a binding material as the sole contact between construction elements as such

Art Unit: 3633

it is well known in the art. For example, a conventional brick wall includes construction elements (bricks) secured to one another via a binding material.

The binder strip of Vigouroux is capable of enabling an adjustment of height alignment, height, and plumb of each of the plurality of construction elements.

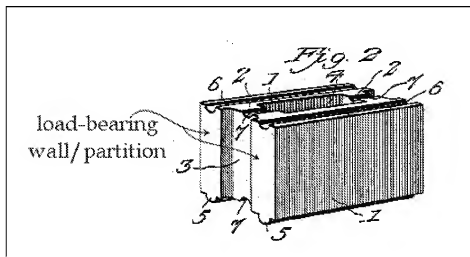


Fig. 2: Brooke (US 800,067)

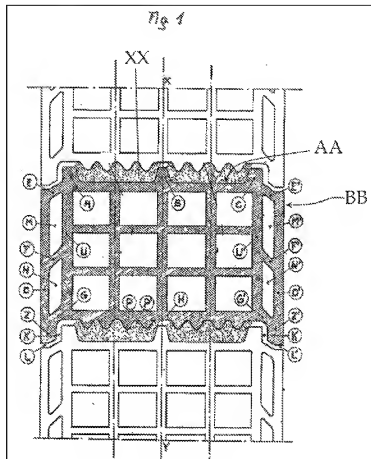


Fig. 1: Vigouroux (FR 1,271,506)

Claims 39, 40, and 54-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brooke (US 800,067) in view of Vigouroux (FR 1,271,506) and in further view of de Kroon et al. (EP 0 115 886).

With regard to claims 39: As per the modification 38, the protuberance (5) and groove (6) of Brooke would be arranged such way to leave a first space between to allow for clearance of the binder as taught by Vigouroux.

Brooke, in view of Vigouroux, discloses everything previously mentioned, but fails to disclose the protuberance and the groove have a cross-section, which is

approximately trapezoidal in shape, in such a way that, a protuberance lateral flank of the first construction element extends approximately parallel to a groove lateral flank of the second construction element, and a small base of the trapezoid of the protuberance being arranged opposite a small base of the trapezoid of the groove when they are engaged.

However, de Kroon discloses a wall having construction elements having protuberance (2) and groove (3) having which is approximately trapezoidal in shape, in such a way that, a protuberance lateral flank of the first construction element extends approximately parallel to a groove lateral flank of the second construction element, and a small base of the trapezoid of the protuberance (2) being arranged opposite a small base of the trapezoid of the groove (3) when they are engaged (figs. 1 & 5).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the wall of Brooke, previously modified by Vigouroux, to change the shape of the protuberance and groove to have corresponding trapezoidal cross sections as taught by de Kroon which would yield the predictable results of securing construction elements to one another. To change the shape of the protuberance and groove of Brooke to have the known shape of a trapezoid as taught by de Kroon would not be expected to yield new of unpredictable results, the protuberance and groove of Brooke would be expected to perform equally well with either a trapezoidal cross-section or semi-circular cross-section. A change in shape is generally recognized as being within the level of ordinary skill in the art. *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966). Examiner notes that the applicant's

disclosure does not provide criticality for the shape of the protuberance and groove being trapezoidal.

As per the modification, the lateral flanks of the trapezoidal protuberance and groove would be arranged in such a fashion as to leave a first space between them, to allow for clearance of the binder, the small bases of the protuberance and groove would be arranged in such a way as to leave a second space between them, filled by binder.

With regard to claim 40: The ratio of the weight of the construction element to the surface area of the small base of the trapezoidal of protuberance will inherently be inversely proportional to the fluidity of the binder, as the binder supports and allows for the alignment of the construction elements.

With regard to claim 54: Brooke, in view of Vigouroux, discloses everything previously mentioned including each construction element has predetermined height, length and width dimensions, but fails to disclose the dimensions being such that, within the wall, the construction elements fit within interior lintels and stretches of masonry beneath ceilings, the construction elements having a weight which is less than or equal to 25 kg, the height being greater than or equal to the length.

However, de Croon et al. discloses a wall having blocks fitting within lintels (7) and stretches of masonry beneath ceilings (above floor), the construction elements having a weight of about 20 kg, and the height being greater than or equal to the length (pg. 2, lines 13-19; figs. 1-3)

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the construction elements of Brooke, previously modified

by Vigouroux, to have dimensions being such that, within the wall, the construction elements fit within interior lintels and stretches of masonry beneath ceilings, the construction elements having a weight which is less than 25 kg, the height being greater than the length as taught by de Croon et al. in order to provide construction elements capable of creating a desired wall configuration with desired properties, such as strength and integrity.

With regard to claim 55: As per the modification of claim 38, a joint of Brooke extending between the construction elements would be thinner than the depth of the groove (AA) as the protuberance extends partially into the groove as taught by Vigouroux.

Response to Arguments

Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

However, arguments applicable to the references used are addressed below.

Applicant argues that the strip of Vigouroux enabling adjustment of height alignment, height, and plumb of each of the construction elements is based on hindsight. Applicant submits the amount of binder used by Vigouroux is a large amount to which the construction element can still float on.

In response, Examiner notes that applicant's construction element floats on binder similar to that of Vigouroux. Further, Examiner notes the claims are not directed to the method of forming a wall, but instead is directed to an article of the construction

elements and/or wall. Examiner disagrees with applicant that the strip of Vigouroux does not allow for adjustment. By virtue of the construction element being placed on another construction element is adjustment in itself. In constructing a wall, a construction element is placed on another construction element to which the mortar settles and block is aligned to form the vertical wall. Further, a practicing artisan of ordinary skill in the art at the time of invention would recognize the amount of binder necessary to provide adequate adjustment and securement of the construction elements to provide a stable and aesthetically pleasing wall structure.

Applicant further argues that Vigouroux does not teach a binder extending outside the groove towards the lateral faces.

Examiner disagrees, as shown in fig. 1 of Vigouroux, the binder extends out of the groove towards the lateral faces. Further, in adjusting the construction elements, the amount of binder displaced is depended on the desired joint thickness.

Applicant further argues that Brooke's disclosure of the block being secured in position regardless of the cement or other binder employed is not disclosure of a binder being used as the cited passage refers to the object of the invention.

Examiner disagrees, col. 1, lines 9-19 clearly teaches the blocks will be securely locked regardless of the binding material used.

Applicant further argues that if one were to apply binder in the groove as proposed, the penetration of the tongue into groove would cause all the binder to be pushed out of the latter in order to obtain a secure locking and that a very thin layer of layer of binder would be possible.

Applicant's arguments are not understood, it appears applicant is describing the resulting structure of application's own invention. Applicant has not adequately described why the combination of Brooke and Vigouroux would perform differently. Examiner submits the structural limitations of the claim are met and the combination of Brooke and Vigouroux would be expected to perform equally well to that of applicants.

Applicant's further argues the disclosure of Hanner does not teach the lifting tool enables alignment of the height and plumb of the construction element.

Applicant arguments are directed to the intended use of the tool. The tool of Hanner is capable of use in the alignment of height and plumb.

The previous rejection of claims 41-45, 47, and 53 under 35 U.S.C. 112, second paragraph has been withdrawn in view of the amendment filed 5/28/09.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

Art Unit: 3633

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JESSIE FONSECA whose telephone number is (571)272-7195. The examiner can normally be reached on M-F 7:30am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Canfield can be reached on (571)272-6840. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. F./
Examiner, Art Unit 3633

/Robert J Canfield/

Application/Control Number: 10/520,463

Page 18

Art Unit: 3633

Supervisory Patent Examiner, Art Unit 3635